### Grinnell College Art Collection

### SERI IRONWOOD CARVINGS

donated by Dale B. Furnish '62



This gallery was created by Egan Liias '05 and Cristina Wood '05, both Anthropology majors at Grinnell College, as a part of their 2004 summer research/M.A.P project.

Work was done with the collection of Seri carvings donated by <u>Dale B. Furnish '62</u>, in order to create physical exhibition cases in Goodnow Hall and this virtual gallery to share Mr. Furnish's generous gift with the public.

Our work also included research on the Seri Indians of Sonora, Mexico; focusing on numerous aspects of their culture, and the necessities for beginning the art of ironwood carving.

We would like to give special thanks to Dale Furnish, Jim Lindell, Lesley Wright, Kathy Kamp, Fred Hagemeister, Paula Forbes, Grinnell College Anthropology Department, and the Faulconer Gallery for all their support.

View the collection on-line at:

http://web.grinnell.edu/faulconergallery/serisite/index.htm

### Information about the Seri

The Seri (or Kumkaak - "the people" in their native language), are a native hunter gatherer people who are located in the state of Sonora, a desert region in northwestern Mexico. Once numbering approximately 2000 in the 1890s, today they number only about five hundred (Ryerson, 1976). The Seris' traditional lifestyle has avoided farming and cultivation, animal domestication, and extended contact with other groups. The Seri have lived mostly in isolation, due in large part to their habitation of Tiburon Island, a small island in the Sea of Cortez. They are traditionally a matrilineal, monogamous people divided into four major clans (McGee, 1898), living in small, relatively nomadic groups; a necessity for the harsh habitat.

The Seri livelihood has traditionally depended on fishing, but with a failed Mexican fishing cooperative in the 1930's and commercial shrimping disturbing the ocean ecology in the 1950's, the Seri have been forced to find other sources of income. The major alternative has become tourist and craft arts. With the birth of the ironwood carving industry, the Seri moved permanently off the Tiburon Island, and settled in camps such as Desemboque. In addition to the woodcarvings, the Seri also make woven baskets and necklaces made from shell, stone, seeds, and other virtually inexhaustible resources. (Ryerson, 1976)

#### References:

McGee, W.J. The Seri Indians. Government Printing Office: Washington. 1898.

Ryerson, Scott H. Seri Ironwood Carving: An Economic View, in <u>Ethnic and Tourist Arts:</u> <u>Cultural Expressions from the Fourth World</u>, Nelson H. H. Graburn, ed. Berkeley: University of California Press. 1976.

# **Development of the Art**

#### **Timeline of the Seri Ironwood Carving Industry**

**1920's-40's:** The Seri sell firewood seasonally at Kino Bay, including ironwood. Ironwood's other uses include making harpoons and other tools, toys, musical instruments, and balls for games.†

1930: The entire Seri tribe lives on Tiburon Island, making occasional visits to the mainland.\*

**Early 1930's:** As the fishing industry takes of, the Seri work with Kino Bay Mexican fishermen. A Seri village is established at Desemboque.\*

**1938:** Seri fishermen enter into a cooperative with Mexican fishermen. Seri sell their catch to traders who supply them with food and supplies.\*

**Early 1950's:** Jose Astorga carves small animals of pumice stone. He later becomes the innovator of ironwood carving.‡

**1952:** A rural Mexican school is established at Desemboque. Seri learn to read, do arithmetic, and speak Spanish.\*

Late 1950's: Commercial shrimp boats begin to work in Seri waters, disturbing the ocean floor ecology. This results in fewer sea bass, red snapper, and other fish important to Seri economy.

Kino Bay, a Mexican fishing village, gains popularity as a resort. Tourism increases.

**1961:** Astorga experiments with ironwood carving. He focuses on utilitarian products: bowls, spoons, barrettes, and the occasional paperweight.‡

**1963-4:** Astorga first carves purely decorative items. Early subjects include depictions of sea life pleasing to the tourists who will buy his art.‡

**April 1963:** An American tourist speaks to Astorga about ironwood carving. She is making a desert tortoise doorstop and possibly gives Astorga the idea of carving animal sculpture.‡

**1965:** A hunting preserve is established on Tiburon Island, upsetting traditional Seri economy. The Seri are encouraged to settle more permanently on the mainland.‡

**1968:** "Slim," an American carpenter vacationing in the Kino Bay area, introduces an alternate finishing method for the ironwood carvings to the sea turtle fat currently used. His method of wet and dry sandpaper and paste wax is adopted for its shiny finish.‡

**Fall 1968:** University of Arizona students make monthly trips to Seri villages to purchase ironwood carvings. Before now, only the Astorga family carved and sold their work minimally. The ironwood carving industry takes off.‡

1970's: The Mexican government takes a promotional interest in the Seri ironwood carvings.‡

Half of the adult Seri population is engaged in carving. Several family members may work on a piece together: one carves, one finishes and polishes, etc. A family-worked piece averages one day to complete.†

Seri basketry becomes commercial in response to the ironwood carving tourist art industry. Traditional shapes are modified to fit consumer demand.†

**Nov 1970:** A seasonal nature in ironwood carving is noticed as birds, especially roadrunners, become popular with tourists for the next few months. Other animals are not sculpted during this time.‡

**1972:** Non-Seri Mexicans imitate Seri ironwood carving, sculpting animals outside the Sonoran environment and incorporating machine-assisted techniques.§

Aurora Astorga (daughter to Jose) first initials her work.†

**1974:** BANFOCO becomes a large-scale buyer of ironwood carvings. The program seeks to provide a minimum monthly income and regular product demand for the Seri.‡

**1980:** Ironwood carving is widespread through Sonora and Baja California.§

1982: Ironwood is harvested from the edges of Tiburon Island.†

**1991:** Wood prices continue to rise, increasing four-fold in a decade's time, reaching \$300 per cord.§

19 May 1994: Ironwood becomes a protected species in Mexico.§

#### References:

- \* Graburn, Nelson H.H., Introduction, in <u>Ethnic and Tourist Arts: Cultural Expressions from the Fourth World</u>, Berkeley: University of California Press.
- † Felger, Richard Stephen, and Mary Beck Moser, 1985, <u>People of the Desert and Sea</u>, Tucson: University of Arizona Press.
- ‡ Ryerson, Scott H., 1976, Seri Ironwood Carving: An Economic View, in <u>Ethnic and Tourist Arts: Cultural Expressions from the Fourth World</u>, Nelson H. H. Graburn, ed. Berkeley: University of California Press.
- § St. Antoine, Sara, 1994, Ironwood and Art: Lessons in Cultural Ecology, in <u>Ironwood: An Ecological and Cultural Keystone of the Sonoran Desert</u>, Gary Paul Nabhan and John L. Carr, eds. Washington: Conservation International.

### **Tourist Art and the Seri**

Tourist art is named such due to its nature as a souvenir or memento of a tourist's trip or experience. As a result, a tourist art piece may be less a reflection of a culture, than a reflection of that tourist's perspective or interpretation of an experience with the visited culture. A tourist art form may be a traditional art form that has appealed to consumers as being representative of the culture; or from a non-traditional art form that originated for the purpose of sale to those outside the community.

The Seri Indians began commercial ironwood carving at the suggestion of a tourist, but its origin began with the carving of toys and harpoon points (Lindell, 2004). Jose Astorga is responsible for the introduction of purely asthetic sculpture, which he attributes to the positive response of tourists interested in buying his wares. Traditional crafts, such as basketry and jewelry making were also developed to be included as part of the tourist market (Ryerson, 1976).

Consumer demand has shaped the carving industry, determining stylistic traits such as asymmetry and the abstract and representative forms of the carvings. To the tourist, the authenticity of a piece is based on his perception of the 'primitive' or 'native' natue of the carvings. For this reason the tourist may choose the most basic design over those which seem more complex or less primitive. To the tourist, those ironwood carvings which are most basic stylistically, are those with the most appeal. The artists themselves generally prefer more realistic, detailed sculptures. Early works included such features as nail heads for eyes and carved mouths, both details potential buyers found undesirable.

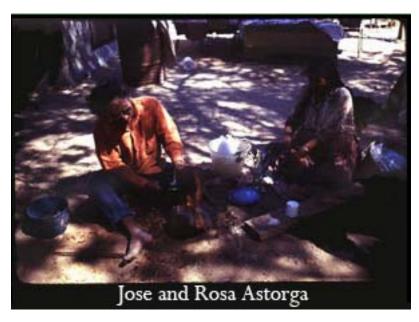
The existence of the Seri as exotic and unique is important to the sale of the ironwood carvings. So much so, that today, non-Seri Mexican imitators attach stickers with the words "Handmade by Seri" to the bottom of their power-tooled carvings to fetch a higher price from unknowing tourists. Today, the production of ironwood carvings has all but ceased, as the raw ironwood is very hard to come by, which has further increased the value of the extant carvings.

#### References:

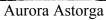
Lindell, Jim. Personal Interview. 30 July 2004.

Ryerson, Scott H., 1976, Seri Ironwood Carving: An Economic View, in <u>Ethnic and Tourist Arts: Cultural Expressions from the Fourth World</u>, Nelson H. H. Graburn, ed. Berkeley: University of California Press.

# The Artists









Jose Astorga

Bottom photos from Johnston, Bernice, "The Seri Indians of Sonora Mexico," Univ. of Arizona Press (1970). Also available at <a href="https://www.uapress.arizona.edu/onlinebks/seris/carvings.htm">www.uapress.arizona.edu/onlinebks/seris/carvings.htm</a>.

\*\* Aurora Astorga

\*\* Herminia Astorga

\*\* Jose Astorga

\*\* Maria Victoria Astorga

\*\* Olga Astorga

\*\* Yolanda Astorga

\*\* Miguel Barnett

\*\* Nacho Barnett

\*\* Pancho Barnett

\*\* Alfredo Lopez Blanco

\*\* Antonio Lopez Blanco

Lola Blanco

\*\* Carmelita Burgos

\*\* Maria Burgos

\*\* Rosa Burgos

\*\* Armando Torres Cubillas

\*\* Miguel Estrella

\*\* Alejandro Diaz Feliz

Alfredo Diaz Feliz

\*\* Mercedes Diaz Feliz

\*\* Ramon Lopez Flores

\*\* Francisco Morales Herrera

\*\* Lupe Herrera

\*\* Jesus Lopez

\*\* Ernesto Molina

\*\* Nacho Molina

\*\* Rosa Montoya

\*\* Panchita Moreno Lopez

José Juan Moreno

Fernando Romero

Manuel Romero

\*\* Maria Romero

Miguel Estrella Romero

Efrain Estrella Romero

\*\* Antonio Robles Torres

\*\* Elvira Torres

<sup>\*\*</sup> Represented in the collection

# Gallery



SEA LIFE



TERRESTRIAL ANIMALS



**BIRDS** 



**SHELLFISH** 



**MISCELLANEOUS** 

# Sea Life (27)

A large part of the Seri's livelihood is based on a knowledge and use of the ocean creatures. The largest part of the Seri diet has always been fish, but other species from the ocean were also eaten historically, such as sea turtle, sealion, and shark.



name: Whale, large (1997.40)

artist: Aurora Astorga

height: 14cm

width: 21cm

depth: 56cm



name: Shark, large (1997.43)

artist: Unknown

height: 14cm

width: 10cm

depth: 44cm



name: Shark, curved-body (1997.44)

artist: Jesus Lopez

height: 10cm

width: 10cm

depth: 25cm



name: Crab (1997.49)

artist: Alejandro Diaz Feliz

height: 4cm

width: 23cm

depth: 12cm



name: Sailfish (1997.53)

artist: Unknown

height: 13cm

width: 5cm

depth: 27cm

note: carved using powertools



name: Seal on Rock, small (1997.279)

artist: Aurora Astorga

height: 18cm

width: 16.5cm

depth: 15cm



name: Shark, large (1997.280)

artist: Aurora Astorga

height: 12cm

width: 13cm

depth: 35.5cm



name: Dolphin (1997.281)

artist: Aurora Astorga

height: 10cm

width: 12.5cm

depth: 26cm



name: Seal, small (1997.284)

artist: Aurora Astorga

height: 8.5cm

width: 8.5cm

depth: 19cm



name: Boat Prow Whale (1997.287)

artist: Jose Astorga

height: 12cm

width: 10cm

depth: 37cm



name: Whale, medium (1997.288)

artist: Jose Astorga

height: 5.5cm

width: 8cm

depth: 25.5cm



name: Sting Ray (1997.290)

artist: Jose Astorga

height: 9.5cm

width: 19cm

depth: 30cm



name: Seal on Rock, small (1997.292)

artist: Herminia Astorga

height: 8cm

width: 7cm

depth: 8cm

note: carved from variegated stone



name: Seal (1997.294)

artist: Yolanda Astorga

height: 10.5cm

width: 12cm

depth: 29cm



name: Sea Turtle, swimming (1997.302)

artist: Nacho Barnett

height: 7cm

width: 24.5cm

depth: 17.5cm



name: Sea Turtle (1997.304)

artist: Pancho Barnett

height: 6cm

width: 13cm

depth: 14cm



name: Dolphin (1997.310)

artist: Rosa Burgos

height: 7cm

width: 6cm

depth: 22cm



name: Shark, curved-body (1997.313)

artist: Alejandro Diaz Feliz

height: 9cm

width: 6cm

depth: 24.5cm



name: Crab (1997.315)

artist: Alejandro Diaz Feliz

height: 3.5cm

width: 20cm

depth: 11cm



name: Manta Ray (1997.321)

artist: Miguel Estrella

height: 4.5cm

width: 12cm

depth: 21cm



name: Seal, medium (1997.328)

artist: Francisco Morales Herrera

height: 12.5cm

width: 13cm

depth: 24.5cm



name: Dolphin (1997.332)

artist: Maria Romero

height: 7cm

width: 9cm

depth: 31cm



name: Sea Turtle, swimming, large (1997.334)

artist: Armando Torres Cubillas

height: 13cm

width: 28cm

depth: 45cm



name: Seahorse, large (1997.277)

artist: Aurora Astorga

height: 42cm

width: 5cm

depth: 17cm



name: Seal on Rock, large (1997.303)

artist: Pancho Barnett

height: 25.5cm

width: 15.5cm

depth: 20.5cm



name: Seahorse, small (1997.326)

artist: Nacho Molina

height: 23cm

width: 4cm

depth: 6.5cm



name: Dolphin, diving (1997.331)

artist: Antonio Robles Torres

height: 22cm

width: 6cm

depth: 9cm

## **Terrestrial Animals (13)**

There are numerous species of land dwelling animals that the Seri use for food, including deer, bighorn sheep, peccary, rabbit, and chuckwalla (a large lizard). There are also a number of smaller creatures like fox, skunk, mountain lion and a huge variety of reptiles that are native to the Sonoran Desert.



name: Bear (1997.47)

artist: Yolanda Astorga

height: 11cm

width: 8cm

depth: 16cm



name: K'tam (male figure), small (1997.45.2)

artist: Olga Astorga

height: 20cm

width: 11.5cm

depth: 5cm



name: K'wam (woman figure), small (1997.45.1)

artist: Olga Astorga

height:19cm

width: 9.5cm

depth: 5cm



name: Rattlesnake, long (1997.50)

artist: Miguel Estrella

height: 1.5cm

width: 4c

depth: 64cm



name: K'wam (woman figure), large (1997.278)

artist: Aurora Astorga

height: 38.5cm

width: 14cm

depth: 7cm



name: Rattlesnake, fat (1997.283)

artist: Aurora Astorga

height: 5cm

width: 8cm

depth: 26.5cm



name: Deer (1997.311)

artist: Alejandro Diaz Feliz

height: 27cm

width: 14cm

depth: 7cm



name: Bighorn Sheep, rearing (1997.312)

artist: Alejandro Diaz Feliz

height: 37cm

width: 12.5cm

depth: 18cm



name: Coyote (1997.314)

artist: Alejandro Diaz Feliz

height: 27cm

width: 16cm

depth: 8cm



name: Bighorn Sheep, large (1997.329)

artist: Panchita Moreno

height: 28cm

width: 12cm

depth: 27cm



name: Scorpion, small (1997.337)

artist: Elvira Torres

height: 3cm

width: 4.5cm

depth: 11cm



name: Scorpion, large (1997.336)

artist: Elvira Torres

height: 10cm

width: 11cm

depth: 36cm



name: Yaqui Deer Dancer (1997.338)

artist: unknown

height: 33.5cm

width: 9cm

depth: 13cm

## **Birds (27)**

There are an abundance of bird species in Seriland, however, only a very few have an economic or dietary importance. Duck is the only species which effort is made to obtain for food, the majority of local species are too small to be worthwhile. Pelican skins are used for making robes to sell to tourists on rare occasions. The only other use for birds is for arrow feathers.



name: Owl, small (1997.41)

artist: Aurora Astorga

height: 16cm

width: 13cm

depth: 11cm



name: Quail (1997.42)

artist: Jose Astorga

height: 11cm

width: 7cm

depth: 27cm



name: Seagull, flying (1997.48)

artist: Alejandro Diaz Feliz

height: 5cm

width: 36cm

depth: 14cm

note: supported on base 4cm x 8cm x 14cm



name: Roadrunner (1997.51)

artist: Ernesto Molina

height: 11.5cm

width: 7cm

depth: 23cm



name: Quail, head turned(1997.274)

artist: Aurora Astorga

height: 24.5cm

width: 31cm

depth: 14cm



name: Eagle, flying (1997.276)

artist: Aurora Astorga

height: 3.5cm

width: 41cm

depth: 15cm



name: Roadrunner, small (1997.285)

artist: Aurora Astorga

height: 9.5cm

width: 7cm

depth: 22cm



name: Quail, small (1997.286)

artist: Aurora Astorga

height: 11.5cm

width: 6.5cm

depth: 18.5cm



name: Hummingbird (1997.289)

artist: Jose Astorga

height: 12.5cm

width: 7cm

depth: 33.5cm



name: Quail, fine plume (1997.291)

artist: Herminia Astorga

height: 9cm

width: 5.5cm

depth: 20cm



name: Great Tailed Grackle (1997.296)

artist: Miquel Barnett

height: 11cm

width: 6cm

depth: 30cm



name: Pelican, sitting (1997.301)

artist: Nacho Barnett

height: 20cm

width: 10cm

depth: 21cm



name: Quail (1997.316)

artist: Alejandro Diaz Feliz

height: 9cm

width: 6cm

depth: 22cm



name: Quail, large (1997.317)

artist: Mercedes Diaz Feliz

height: 18cm

width: 9.5cm

depth: 21cm



name: Quail, medium (1997.318)

artist: Mercedes Diaz Feliz

height: 14cm

width: 7cm

depth: 16cm



name: Quail, small (1997.319)

artist: Mercedes Diaz Feliz

height: 10cm

width: 6cm

depth: 13cm



name: Owl, large (1997.273)

artist: Aurora Astorga

height: 34.5cm

width: 24.5cm

depth: 19cm



name: Pelican, sitting (1997.275)

artist: Aurora Astorga

height: 28cm

width: 9cm

depth: 14cm



name: Quail, miniature (1997.320)

artist: Mercedes Diaz Feliz

height: 6cm

width: 4cm

depth: 8cm



name: Quail, large (1997.323)

artist: Alfredo Lopez Blanco

height: 13cm

width: 11.5cm

depth: 30cm



name: Great Tailed Grackle (1997.325)

artist: Ramon Lopez Flores

height: 9cm

width: 6.5cm

depth: 22.5cm



name: Quail (1997.327)

artist: Rosa Montoya

height: 10cm

width: 7cm

depth: 17cm



name: Owl, medium (1997.330)

artist: Panchita Moreno

height: 21cm

width: 12cm

depth: 9.5cm



name: Eagle, large, sitting (1997.282)

artist: Aurora Astorga

height: 40cm

width: 26cm

depth: 16cm



name: Osprey, flying (1997.331.1)

artist: Armando Torres Cubillas

height: 3cm

width: 27cm

depth: 12.5cm



name: Osprey, flying (1997.331.2)

artist: Armando Torres Cubillas

height: 7cm

width: 27cm

depth: 14cm



name: Eagle, flying (1997.335)

artist: Armando Torres Cubillas

height: 7cm

width: 43.5cm

depth: 22cm

# Shellfish (10)

The Seri Indians have traditionally taken advantage of the wide variety of shellfish as a source of food. They have also used the shells as tools and to make beaded necklaces to sell to tourists.



name: Shell, fluted (1997.46)

artist: Olga Astorga

height: 11cm

width: 9cm

depth: 4cm



name: Shell (1997.52)

artist: Carmelita Burgos

height: 10cm

width: 10cm

depth: 18cm



name: Shell, small, fluted (1997.293)

artist: Olga Astorga

height: 2.5cm

width: 5cm

depth: 8cm



name: Shell, large (1997.297)

artist: Miquel Barnett & Maria Victoria Astorga

height: 11.5cm

width: 12.5cm

depth: 33.5cm



name: Shell (1997.305)

artist: Carmelita Burgos

height: 6.5cm

width: 8cm

depth: 10.5cm



name: Shell (1997.306)

artist: Carmelita Burgos

height: 6.5cm

width: 8cm

depth: 19cm



name: Shell, large (1997.307)

artist: Maria Burgos

height: 9cm

width: 11.5cm

depth: 28cm



name: Shell, medium (1997.308)

artist: Maria Burgos

height: 6.5cm

width: 7cm

depth: 16cm



name: Shell, small (1997.309)

artist: Rosa Burgos

height: 4cm

width: 5.5cm

depth: 5cm



name: Shell, medium (1997.322)

artist: Lupe Herrera

height: 5cm

width: 6.5cm

depth: 10.5cm

# **Miscellaneous** (5)

The Seri Indians historically carved ironwood and other dense woods into a variety of utilitarian goods, such as bowls, spoons, toys, and harpoon points. As ironwood carving became accepted as an viable economic good, animal carvings replaced utilitarian goods.



name: Knife (1997.295)

artist: Miquel Barnett

height: 3.5cm

width: 1.5cm

depth: 38cm



name: K'wam (female figure), unfinished (1997.298)

artist: Miquel Barnett & Maria Victoria Astorga

height: 30cm

width: 12cm

depth: 5cm



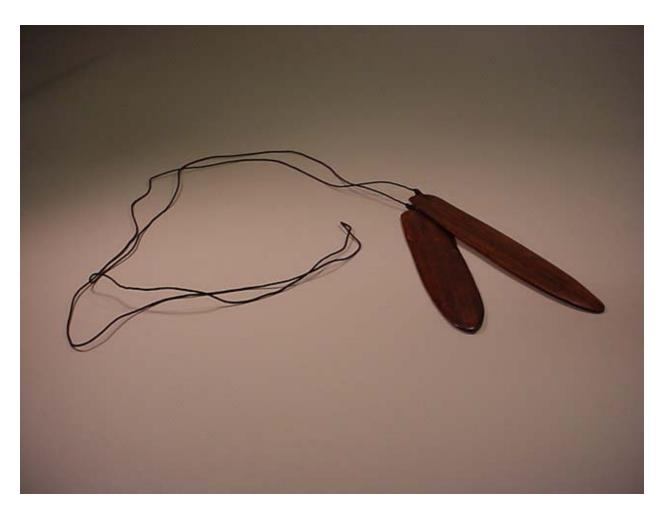
name: K'tam (male figure), unfinished (1997.299)

artist: Miquel Barnett & Maria Victoria Astorga

height: 34cm

width: 10.5cm

depth: 3.5cm



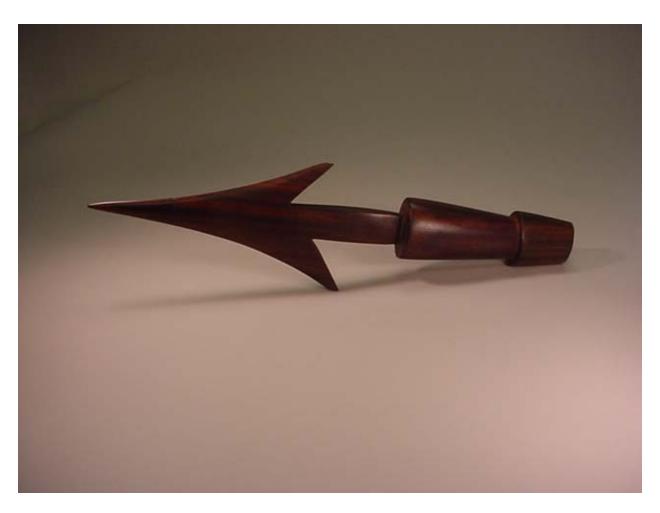
name: Bullroarer (x2) (1997.300)

artist: Miquel Barnett & Maria Victoria Astorga

height: .5cm/.5cm

width: 3cm/3.5cm

depth: 18.5cm/21.5cm



name: Harpoon (1997.324)

artist: Antonio Lopez Blanco

height: 3cm

. 8 .. . .

width: 8.5cm

depth: 33.5cm

## **About the Donor**

Dale Furnish, '62, grew up in Iowa City, Iowa and became a history major at Grinnell College in 1958. He then went on to specialize in Latin American comparative law. He now holds emeritus status at Arizona State University. Growing up he lived in Texas, Venezuela, and Saudi Arabia, giving him a worldly curiosity and an early taste for travel. Over the years his work has led him to Central and South America, particularly the Mexican state of Sonora. A law conference in Kino Bay in the early 1970's gave him his first exposure to Seri ironwood carvings. The first piece he collected was a carving of a shark. Through his interactions with Jim Lindell, a Seri art trader, he expanded his collection to form a representative sampling of carvings, and later to frequent Seriland and meet the carvers themselves.

Mr. Furnish had the following to say about the Seri carvings:

"I think that the carvings attracted me because the wood was so warm and expressive, and I like representational art. Ironwood really is a special medium, with heft and depth of grain and luster and lots of character. The carvings are great to hold. The Seri carvers did the animals that inhabited their world, and captured the essence of those animals in a way that spoke to me."

## **Additional Information**

This is a short annotated bibliography of some of the texts we used in researching the Seri:

Felger, Richard Stephen and Mary Beck Moser, "People of the Desert and Sea," University of Arizona Press, Tucson (1985).

This book gives an in depth look at all facets of Seri Indian life; climate, dress, myths and customs and ironwood carving, and everything in-between. The author also provides an exhaustive list of plant life native to the Sonoran desert, along with the uses that the Seri have for each. One of our most informative texts.

Ryerson, Scott H., "Ironwood Carving: An Economic View," in Nelson H. H. Graburn, ed., <u>Ethnic and Tourist Arts: Cultural Expressions from the Fourth World</u>, pp119-136, University of California Press, Berkeley (1976).

This chapter provides a good understanding of the development and innovation of the ironwood carving craft, from its beginning with Jose Astorga up until the time the book was published. The author gives a small amount of background information about the Seri, but the main focus is the analysis of the carving as a tourist fueled economic activity. Ryerson approaches the subject with the understanding that ironwood carving is a substitution for the traditional means of economic survival, the fishing industry.

Burckhalter, David, "Among Turtle Hunters and Basket Weavers: Adventures with the Seri Indians," Treasure Chest Books, Tucson (1999).

This book provides a simple overview of Seri culture and the area in which they live. There are numerous full color photos of Seri people as well as the ironwood carvings and basketry. Burckhalter also includes a short section based on stories from the past and how the Seri have adapted to changing times.

St. Antoine, Sara, "Ironwood and Art: Lessons in Cultural Ecology," in Gary Paul Nabhan and John L. Carr, eds., <u>Ironwood: An Ecological and Cultural Keystone of the Sonoran Desert</u>, pp 69-85, Conservation International, Washington (1994).

This article touches on the environmental impacts of ironwood carving done by Seri Indians, as well as the Mexican imitators. It also goes through the innovation of the art and the ways in which a conservation program could be instituted, namely through the Seri carvers. The author also offers four alternative substances that could be used to replace the endangered ironwood.

For a complete list of our sources please send us an email via the comments link

The Furnish collection numbers 84 pieces.

### **Appendix**

James M. Palmer (Grinnell, '59) has accumulated a modest collection of Seri ironwood carvings since moving to Tucson Arizona in 1970. His collection numbers eight pieces, acquired during the period from 1975 to 1985. He has been concerned about the disposition of his carvings, desiring that they be placed with a good collection. He was astonished to find the Furnish Collection at Grinnell College. He contacted Mr. Furnish, who indicated that these pieces would indeed be a welcome addition. The following pages show these eight pieces of Seri ironwood art.



name: Quail

artist: Aurora Astorga

height: 10 cm

width: 6 cm

depth: 22 cm



name: Seal

artist: Jose Astorga

height: 11.5 cm

width: 8 cm

depth: 26 cm



name: Ram

artist: Jose Astorga

height: 13 cm

width: 9 cm

depth: 7.5 cm



name: Owl

artist: Jose Astorga

height: 12 cm

width: 10.5 cm

depth: 7 cm



name: K'tam (male figure)

artist: Maria Victoria Astorga

height: 27.5 cm

width: 12 cm

depth: 5 cm



name: K'wam (female figure)

artist: Maria Victoria Astorga

height: 26.5 cm

width: 12 cm

depth: 5 cm



name: Roadrunner

artist: Roberto Camposano

height: 12 cm

width: 6 cm

depth: 30 cm



name: Pelican

artist: Unknown

height: 20 cm

width: 5 cm

depth: 7 cm